

What is claimed is:

1. An isolated nucleic acid comprising a sequence of nucleotides,  
the expression of which is differential or preferential in human  
5 hepatocellular carcinoma tissue or tissue from a related cancer relative to  
other tissue in said subject and/or in subjects not diagnosed with this  
condition.

2. The isolated nucleic acid of claim 1, comprising  
10 the nucleotide sequence of SEQ ID NO:1 or SEQ ID NO:3 or  
a nucleotide sequence having at least about 60% similarity to SEQ ID  
NO:1 or SEQ ID NO:3 after optimal alignment or  
a nucleotide sequence capable of hybridizing to SEQ ID NO:1 or SEQ  
ID NO:3 under low stringency conditions.

3. An isolated peptide, polypeptide, or protein, or a derivative,  
homologue, or analogue thereof, which protein is differentially or  
preferentially produced in or by human hepatocellular carcinoma tissue or  
tissue from a related cancer relative to other tissue in said subject and/or in  
15 subjects not diagnosed with this condition.

4. The isolated peptide, polypeptide, or protein of claim 3,  
comprising  
the amino acid sequence of SEQ ID NO:2 or  
25 an amino acid sequence having at least 60% similarity to SEQ ID NO:2  
after optimal alignment or  
an amino acid sequence encoded by the nucleotide sequence of SEQ  
ID NO:1 or SEQ ID NO:3 or a nucleotide sequence having at least about 60%  
similarity to SEQ ID NO:1 or SEQ ID NO:3 after optimal alignment or a  
30 nucleotide sequence capable of hybridizing to SEQ ID NO:1 or SEQ ID NO:3

under low stringency conditions.

5. A modulator of expression of a nucleic acid molecule which nucleic acid molecule is differentially or preferentially expressed in human  
5 hepatocellular carcinoma tissue or tissue from a related cancer relative to other tissue in said subject and/or in subjects not diagnosed with this condition.

6. The modulator of expression of claim 5, wherein the modulator  
10 is an antagonist.

7. The modulator of expression of claim 6, wherein the antagonist is an antisense molecule.

8. The modulator of expression of claim 5, wherein the nucleic acid molecule comprises a nucleotide sequence as set forth in SEQ ID NO:1 or  
15 SEQ ID NO:3 or a nucleotide sequence having at least about 60% similarity to SEQ ID NO:1 or SEQ ID NO:3 after optimal alignment or a nucleotide sequence capable of hybridizing to SEQ ID NO:1 or SEQ ID NO:3 under low  
20 stringency conditions.

9. A method for diagnosing human hepatocellular carcinoma or a related condition in a subject or a propensity for said subject to develop human hepatocellular carcinoma or a related condition, said method  
25 comprising the step of

identifying expression of a gene which is differentially or preferentially expressed in tissue from subjects with hepatocellular carcinoma or a related condition relative to other tissue in said subject and/or subjects not  
diagnosed with this condition.

10. The method of claim 9, wherein the gene comprises a nucleotide sequence as set forth in SEQ ID NO:1 or SEQ ID NO:3 or a nucleotide sequence having at least about 60% similarity to SEQ ID NO:1 or SEQ ID NO:3 after optimal alignment or a nucleotide sequence capable of hybridizing to SEQ ID NO:1 or SEQ ID NO:3 under low stringency conditions.

11. A method of treating hepatocellular carcinoma or a related condition, said method comprising the step of

administering to a subject in need of such treatment an antagonist of a gene or gene product which is differentially or preferentially expressed in tissue from subjects with hepatocellular carcinoma or a related condition relative to other tissue in said subject and/or subjects not diagnosed with this condition.

12. The method of claim 11, wherein an antagonist of a gene, that comprises a nucleotide sequence as set forth in SEQ ID NO:1 or SEQ ID NO:3 or a nucleotide sequence having at least about 60% similarity to SEQ ID NO:1 or SEQ ID NO:3 after optimal alignment or a nucleotide sequence capable of hybridizing to SEQ ID NO:1 or SEQ ID NO:3 under low stringency conditions, is administered to said subject.

13. A method of claim 11, wherein an antagonist of a gene product, that comprises an amino acid sequence as set forth in amino acid sequence SEQ ID NO:2 or an amino acid sequence having at least 60% similarity to SEQ ID NO:2 after optimal alignment or an amino acid sequence encoded by the nucleotide sequence set forth in SEQ ID NO:1 or SEQ ID NO:3 or a nucleotide sequence having at least about 60% similarity to SEQ ID NO:1 or SEQ ID NO:3 after optimal alignment or a nucleotide sequence capable of hybridizing to SEQ ID NO:1 or SEQ ID NO:3 under low stringency conditions, is administered to said subject.

14. A method of modulating one or more activities within a cell, said method comprising the step of

modulating expression of hcc-1 gene expression or the activity of HCC-

5 1 for a time and under conditions sufficient to modulate the cell activity.